

REMARKS

Claims 1 to 7, 11 to 17, 19 to 20 and 24 to 26 are pending in this application. Claims 1, 19 and 20 are the independent claims and amended herein. Claims 8 to 10 are cancelled without prejudice. Favorable reconsideration and further examination are respectfully requested.

Claims 1-6, 8-11, 17, 19, 20 and 24 to 26 are rejected under 35 U.S.C. §103(a) as being obvious over Aziz et al. (U.S. Patent Number 6,779,016 hereinafter "Aziz") in view of Matsunami et al. (U.S. Patent Number 7,082,462 hereinafter "Matsunami"). Claims 7 and 12 to 16 were rejected under 35 U.S.C. §103(a) as being obvious over Aziz in view of Matsunami and Nine et al. (U.S. Patent Number 6,560,611).

Amended claim 1 is directed to a method of managing hardware resources. The method includes providing executable software modules configured to communicate with the hardware resources. Each executable software module implements a common interface and corresponds to a different one of the hardware resources to allow a monitoring device to be implemented independent of the hardware resources. The method also includes operating the executable software modules to cause the executable software modules to return information to the monitoring device about the hardware resources. The information includes hardware configuration information associated with the hardware resources and customer information associated with customers of the hardware resources. The customer information includes world-wide names of equipment used by the customers, allocation information indicative of allocations of the hardware resources to the customers and billable event information for use by a billing

application to bill the customers and indicative of usage of the hardware resources by the customers. The method further includes storing the hardware configuration information and the customer information in a database, generating a directory of executable modules and placing each of the executable software modules in the directory. The common interface includes a set of methods including a first method that, when called, causes the executable software module to identify a class of hardware resource with which the executable software module is configured to communicate, and a second method that, when called, causes the software executable module to identify any hardware resources within the class that are connected.

The applied art is not understood to disclose or to suggest the foregoing features of claim 1. In particular, neither Aziz nor Matsunami disclose or suggest providing executable software modules configured to communicate with the hardware resources, with each executable software module implementing a common interface to allow a monitoring device to be implemented independent of the hardware resources and corresponding to a different one of the hardware resources. (see, for example, page 2, lines 6 to 23 and the Abstract of Applicants' Specification).

Aziz discloses a Control Plane, a supervisory mechanism, for a Virtual Server Farm (VSF) (see, column 4, lines 54 to 63 of Aziz). Aziz discloses that the "Control Plane runs on a completely independent set of computing elements assigned for supervisory purposes" (see, column 4, lines 64 and 65 of Aziz). However, Aziz does not disclose executable software modules configured to communicate with the hardware resources much less that each executable software module implements a common interface to allow a monitoring device to be

implemented independent of the hardware resources and corresponds to a different one of the hardware resources. Rather, even in a broadest interpretation, Aziz describes only one interface, the Control Plane, connected to the VSF with no mention of executable software modules.

Matsunami is directed to a method and system of managing an access to a private logic unit of a storage system (Title of Matsunami). The Examiner cites Matsunami merely to support world-wide names of equipment. However, Matsunami does not disclose or suggest executable software modules configured to communicate with the hardware resources much less that each executable software module implements a common interface to allow a monitoring device to be implemented independent of the hardware resources and corresponds to a different one of the hardware resources.

Accordingly, for at least the reasons indicated above, even if Matsunami were combined with Aziz, the resulting hypothetical combination would not disclose or suggest providing executable software modules configured to communicate with the hardware resources and that each executable software module implements a common interface to allow a monitoring device to be implemented independent of the hardware resources and corresponds to a different one of the hardware resources.

Furthermore, neither Aziz nor Matsunami disclose or suggest generating a directory of executable modules and placing each of the executable software modules in the directory (see, for example, page 14, lines 15 to 28 of Applicants' specification). Since Aziz and Matsunami neither separately nor in combination disclose or suggest executable software modules configured to communicate with the hardware resources neither cited reference could disclose or

suggest generating a directory of executable modules and placing each of the executable software modules in the directory.

Moreover, neither Aziz nor Matsunami disclose or suggest the common interface including a set of methods comprising a first method that, when called, causes the executable software module to identify a class of hardware resource with which the executable software module is configured to communicate, and a second method that, when called, causes the executable software module to identify any hardware resources within the class that are connected (see, for example, page 14 line 30 to page 15, line 5 of Applicants' specification). Again, since Aziz and Matsunami neither separately nor in combination disclose or suggest executable software modules neither cited reference can disclose or suggest a first method that, when called, causes the executable software module to identify a class of hardware resource with which the executable software module is configured to communicate, and a second method that, when called, causes the executable software module to identify any hardware resources within the class that are connected.

Independent claim 19 is a computer product claim and independent claim 20 is a system claim, each having features corresponding to claim 1. Applicants submit that the cited references should also be withdrawn with respect to claims 19 and 20 for at least the same reasons as claim 1.

Applicants submit that claim 11 is further distinguished from the cited prior art. In particular, none of the cited prior art discloses or suggests that the common interface includes methods that further include a third method that, when called, causes the executable software

module to poll the hardware resources identified within the class that are connected because the cited references neither separately nor in combination disclose or suggest executable software modules, each implementing a common interface corresponding to a different one of the hardware resources as indicated above.

For at least the foregoing reasons, Applicants request withdrawal of the art rejection.

Applicants submit that all dependent claims now depend on allowable independent claims.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for withdrawing the prior art cited with regards to any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Applicants submit that the entire application is now in condition for allowance. Such action is respectfully requested at the Examiner's earliest convenience.

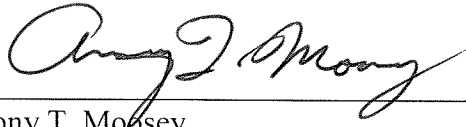
All correspondence should be directed to the address below. Applicants' attorney can be reached by telephone at (781) 401-9988 ext. 123.

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No fee is believed to be due for this Response; however, if any fees are due, please apply such fees to Deposit Account No. 50-0845 referencing Attorney Docket: EMC-033PUS.

Respectfully submitted,

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